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POWER PENTODE

MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.3	ac or dc volts
Current	0.65	amp

Direct Interelectrode Capacitances (without external shield):

Grid No.1 to Plate	0.120	μμf
Input	11	μμf
Output	5.5	μμf

Characteristics, Amplifier Class A_1:

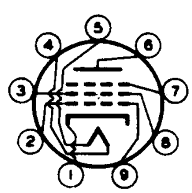
Plate Voltage	250	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Voltage	150	volts
Grid-No.1 Voltage	-3	volts
Peak AF Grid-No.1 Signal Voltage	3	volts
Zero-Signal DC Plate Current	30	ma
Max.-Signal DC Plate Current	31	ma
Zero-Signal DC Grid-No.2 Current	7	ma
Max.-Signal DC Grid-No.2 Current	7.2	ma
Plate Resistance (Approx.)	0.15	megohm
Transconductance	11000	μmhos
Grid-No.1 Voltage (Approx.) for plate current of 10 μamp	-14	volts
Load Resistance	7500	ohms
Total Harmonic Distortion	8	per cent
Max.-Signal Power Output	2.8	watts

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (excluding tip)	2" ± 3/32"
Maximum Diameter	7/8"
Bulb	T-6-1/2
Base	Small-Button Noval 9-Pin (JETEC No.E9-1)

BOTTOM VIEW

Pin 1 - Cathode
Pin 2 - Grid No.1
Pin 3 - Grid No.2
Pin 4 - Heater
Pin 5 - Heater



Pin 6 - Plate
Pin 7 - Grid No.3, Int.Shield
Pin 8 - Grid No.2
Pin 9 - Grid No.1

AMPLIFIER - Class A_1

Maximum Ratings, ***Design-Center Values:***

PLATE VOLTAGE	300 max.	volts
PLATE SUPPLY VOLTAGE	300 max.	volts
GRID-No.3 (SUPPRESSOR) VOLTAGE	0 max.	volts

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GRID-No.2 (SCREEN) VOLTAGE	*See Rating Curve at front of this Section*		
GRID-No.2 SUPPLY VOLTAGE	300	max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Negative bias value	50	max.	volts
Positive bias value	0	max.	volts
PLATE DISSIPATION	7.5	max.	watts
GRID-No.2 INPUT	1.7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	90	max.	volts
Heater positive with respect to cathode	90	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	200	max.	°C

Typical Operation in 4-Mc Bandwidth Video Amplifier Circuit of Fig. 1:

Plate Supply Voltage	300	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	300	volts
Grid-No.1 Bias Voltage	-2	volts
Grid-No.1 Signal Voltage (Peak to Peak)	3	volts
Grid-No.2 Resistor	24000	ohms
Grid-No.1 Resistor	0.1	megohm
Load Resistor	3900	ohms
Zero-Signal Plate Current	30	ma
Zero-Signal Grid-No.2 Current	7.0	ma
Voltage Output (Peak to Peak)	132	volts

Maximum Circuit Values:

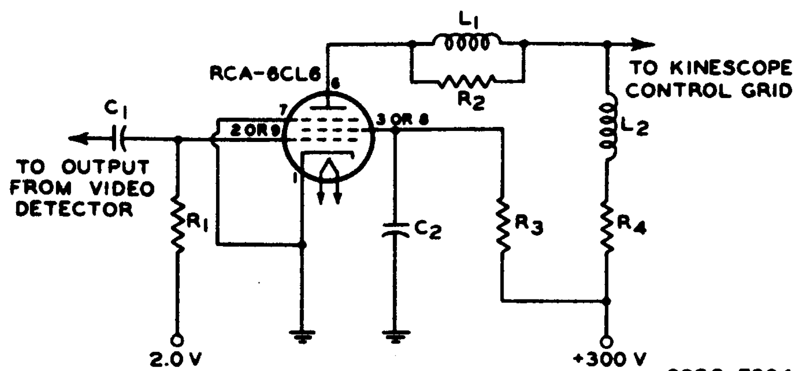
Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.1	max.	megohm
For cathode-bias operation	0.5	max.	megohm

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Fig.1 - Typical Video Voltage Amplifier Circuit Having Bandwidth of 4 Mc.

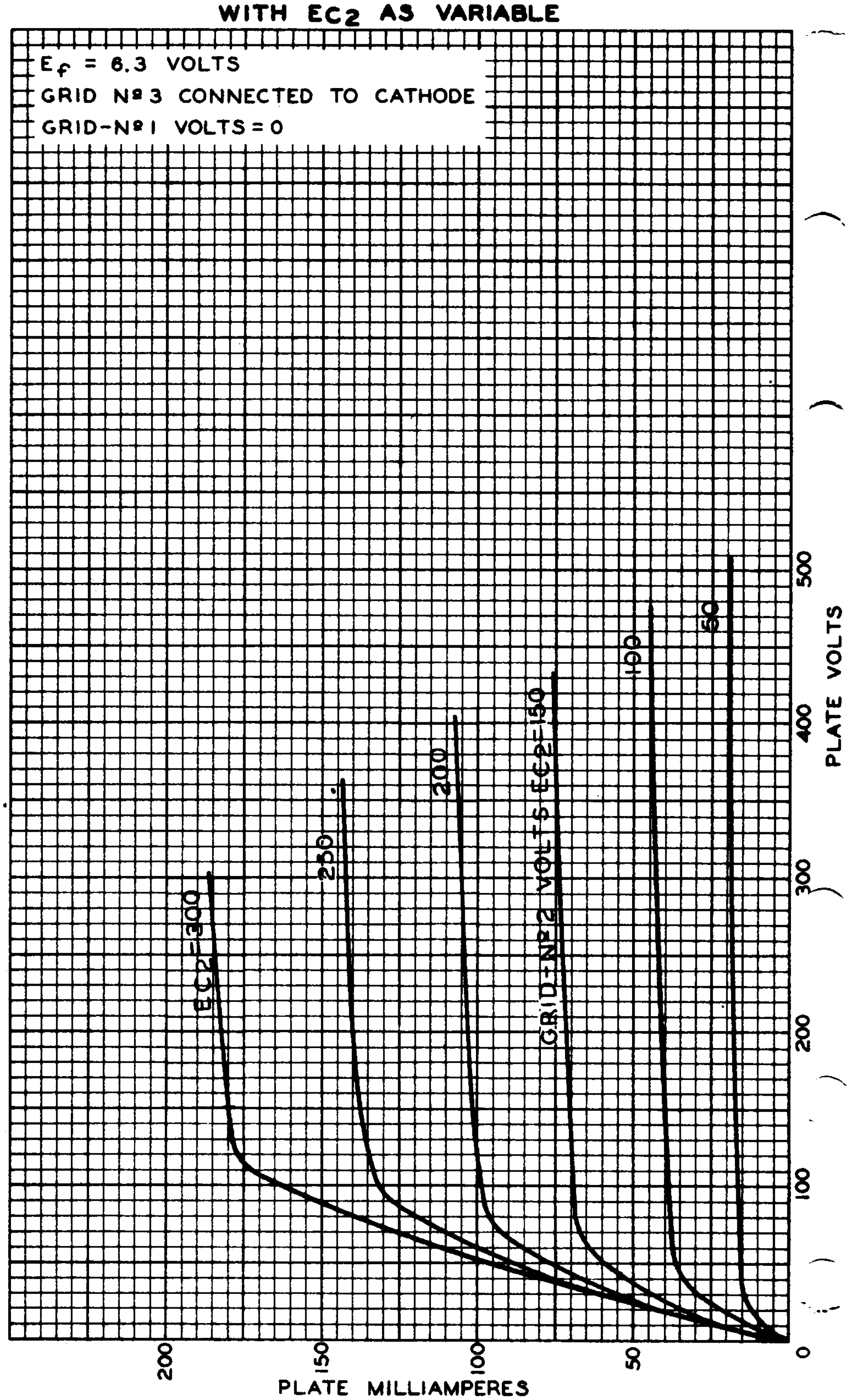


C1:	0.1 µf, 400 volts	R1:	100000 ohms, 0.5 watt
C2:	4 µf, 400 volts	R2:	47000 ohms, 0.5 watt
L1:	Peaking Coil, 180 µh	R3:	24000 ohms, 2 watts
L2:	Peaking Coil, 120 µh	R4:	3900 ohms, 5 watts non-inductive type

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RCA

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AVERAGE PLATE CHARACTERISTICS
WITH E_{C2} AS VARIABLE



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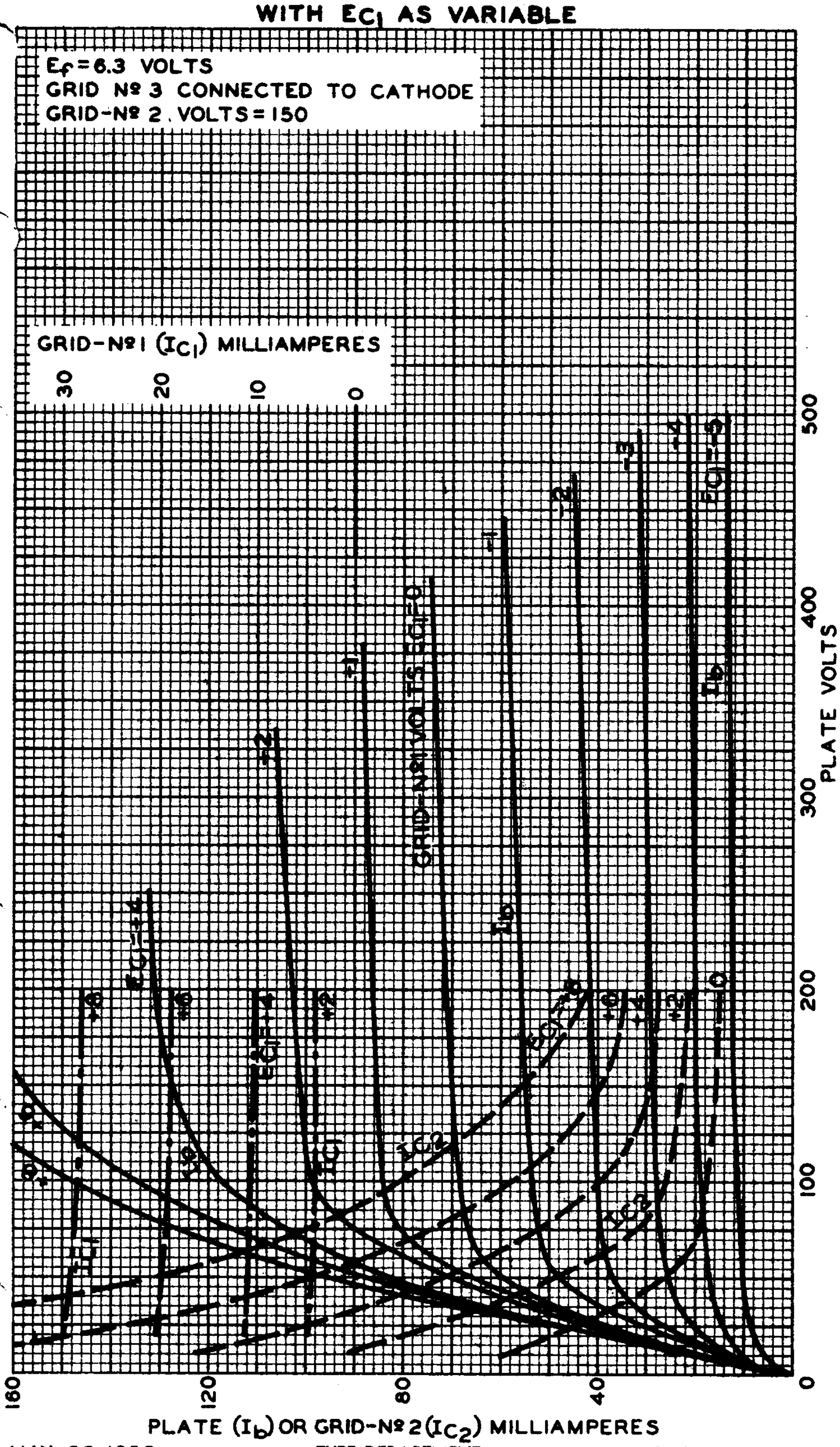
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RCA

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AVERAGE PLATE CHARACTERISTICS

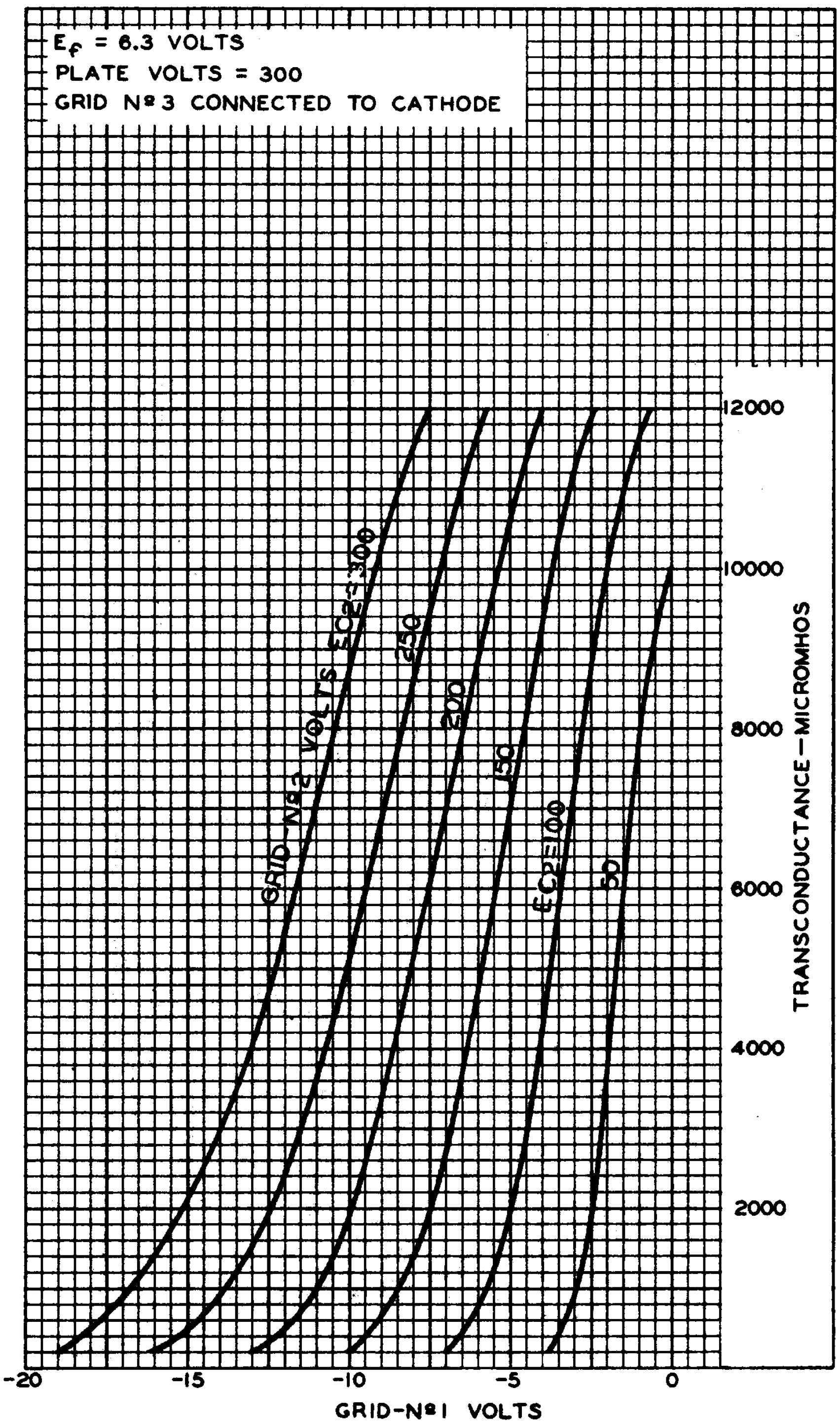
WITH E_{C1} AS VARIABLE



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AVERAGE CHARACTERISTICS

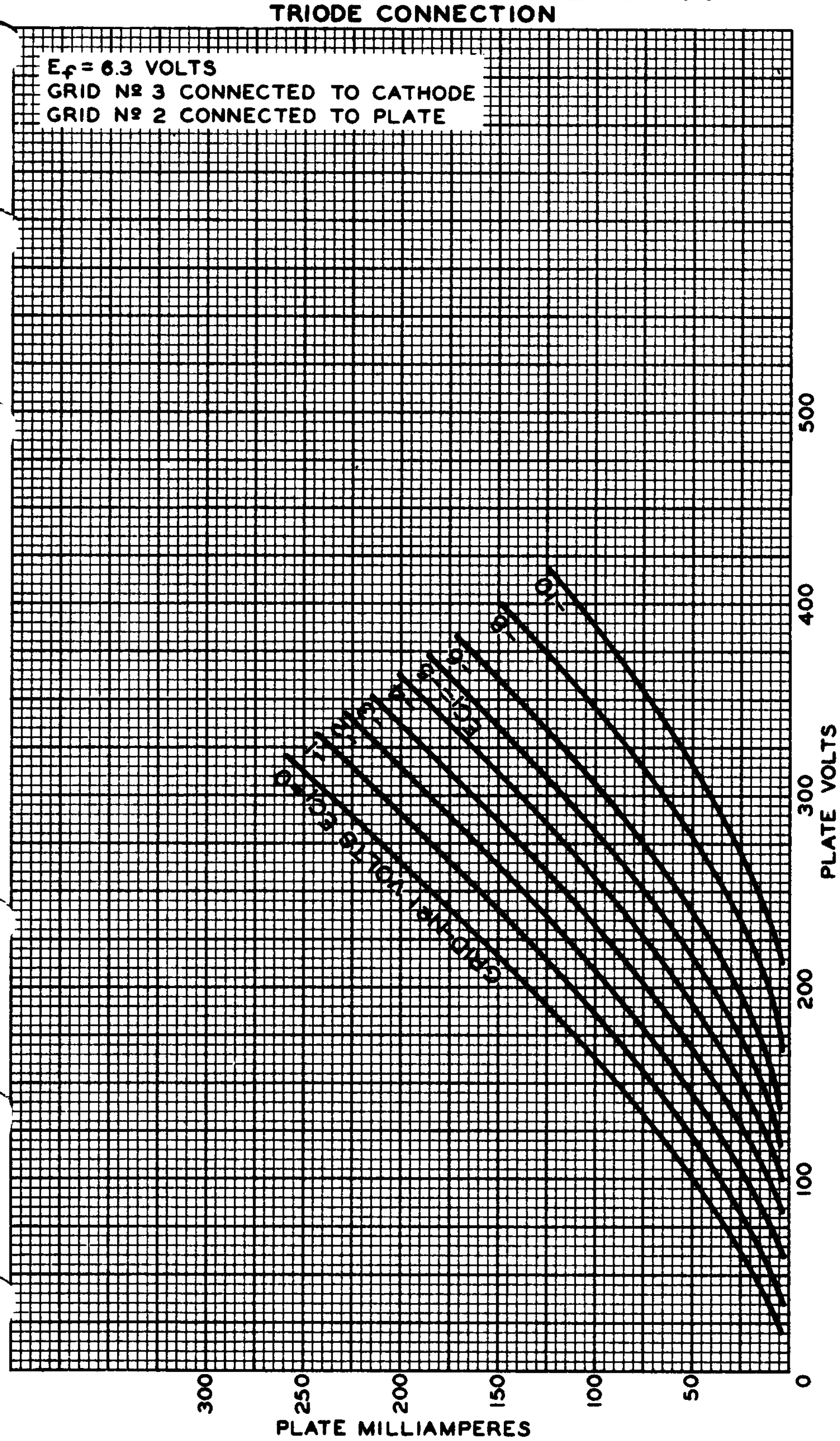


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AVERAGE PLATE CHARACTERISTICS

TRIODE CONNECTION



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